

AUXILIARY BUILDING SAFETY INJECTION SYSTEM EXTERNAL LEAKAGE

1.0 SCOPE

This technical instruction will determine the safety injection system external leakage to the Auxiliary Building. The system will be in operation and pressurized, at which time a visual inspection will be conducted and any leaks will be quantified and repaired if in excess of the acceptance criteria. If a repair is made, a post-maintenance test will be conducted to ensure the integrity of the system's pressure boundary. This instruction will be performed once a year and the data collected will be recorded in this instruction's data sheet as well as in Data Sheet 1 of TI-31.7.0. This TI is to be performed by Mechanical Engineering in conjunction with SI-4.0.5.63.p. The SI provides the necessary valve lineup for the performance of this instruction.

2.0 REFERENCES

DPM N80M4, revised 6/12/81
NUREG 0578, Item 2.1.6.A
SI-4.0.5.63.p

3.0 PREREQUISITES AND TEST EQUIPMENT

3.1 Prerequisites

- 3.1.1 SI-4.0.5.63.p is scheduled to be performed.
- 3.1.2 Schedule support from Operations, Mechanical Maintenance Engineering, and Health Physics.
- 3.1.3 Obtain permission from the SRO to perform this instruction.

3.2 Test Equipment

Stopwatch $\pm \frac{1}{2}$ sec. or better
Suitable fluid collecting device
The latest "as-constructed" revision of 47W811-1

4.0 PRECAUTIONS

- 4.1 The precautions of SI-4.0.5.63.p apply to this instruction.
- 4.2 Before entering a radiation, high radiation, or contaminated zone, obtain the assistance of Health Physics.

5.0 INSTRUCTIONS

- 5.1 Coordinate this test instruction with the UO performing SI-4.0.5.63.p, ensuring the pump is not stopped prior to completion of this instruction for the train being tested.

5.0 INSTRUCTIONS (Continued)

- 5.2 Visually inspect the piping, valves, pumps, heat exchangers, flanges, fittings, and any other components of the system for any signs of external leakage. Use the flow diagram as a reference for walking down the system. Any leaks that are found shall be listed by component, location, and leak rate. The leak rate shall be determined where possible by collecting a known volume and measuring the time required to collect it. All this data shall be recorded on the appropriate data sheet. The water collected is to be disposed of at the discretion of H.P.
- 5.3 Notify the UO performing the SI when the inspection is complete.
- 5.4 Repeat steps 5.1, 5.2, and 5.3 for the remaining train.
- 5.5 Complete the data sheets with the required information and calculations. If the leak rate is considered excessive--therefore not acceptable--a TR shall be written and the faulty component repaired. This item should be given immediate attention. Steps 5.1, 5.2, and 5.3 are to be reconducted upon completion of the TR to ensure the integrity of the system. The post-maintenance leak rate will be recorded in the applicable space provided on the data sheets. The total system leak rate is not to include the pre-maintenance leak rate, only the post-maintenance leak rate.
- 5.6 The data package will be kept by the Mechanical Engineering Section until TI-31.7.0 has been completed. Then it may be disposed of.

6.0 ACCEPTANCE CRITERIA

The leak rate will vary according to the component and must be considered on an individual basis. Therefore, the acceptance criteria is the leak rate considered to be permissible by Operations, Mechanical Maintenance, and the plant Mechanical Engineering staff.

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DATA SHEET A
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SAFETY INJECTION SYSTEM EXTERNAL LEAKAGE

DATE _____

TRAIN A

UNIT _____

Component	Location	Leak Rate	Post-Maintenance Leak Rate	Remarks
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Data Taken By _____

Verified by _____
Mechanical Engineer

Total Train A Leakage _____ GPM

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SAFETY INJECTION SYSTEM EXTERNAL LEAKAGE

DATE _____

TRAIN B

UNIT _____

Component	Location	Leak Rate	Post-Maintenance Leak Rate	Remarks
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Data Taken By _____

Total Train B Leakage _____ GPM

Verified by _____
Mechanical Engineer

Total System Leakage _____ GPM
(Train A & Train B)